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EXAMINER

LAM, VINH TANG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,568	Applicant(s) HUCKEMANN ET AL.	
	Examiner VINH T. LAM	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims **1-7** are cancelled.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **X_{soil}** (should be **X_{set}**). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
Typographical error.

"monoflop **9**" should be "monoflop **27**" (Col. **2**, [0027]).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim **1** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim **1** recites a single means “...**means for providing a pulse-shaped mechanical feedback ...**” where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims **1-14, 16-17, 19-20, and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by **Williams (US Patent No. 4560983)**.

Regarding Claim **8, Williams** teaches a control device for displacing at least one machine axis of a machine tool or production machine, said control device comprising:

a control element adapted to be deflected from a rest position (Col. **6**, Ln. **50-54**, FIG. **2**);

a set value representing a deflection (Col. **6**, Ln. **54-65**, FIG. **3**); and

means for providing a pulse-shaped mechanical feedback to an operator for at least one change in the set value (Col. **7**, Ln. **14-21**, FIGs. **4 & 5**).

Regarding Claim **9, Williams** teaches the control device of claim 8, wherein the set value represents a magnitude (FIG. **3**).

Regarding Claim **10, Williams** teaches the control device of claim 8, wherein the set value represents a duration (FIG. **3**).

Regarding Claim **11**, **Williams** teaches the control device of claim 8, wherein the at least one change in a set value is generated in a steady state deflection of the control element using the control element (Col. 7, Ln. 5-12, FIG. 4).

Regarding Claim **12**, **Williams** teaches the control device of claim 8, wherein the at least one change in a set value is generated during a deflection process of the control element using the control element (Col. 7, Ln. 30-45, FIGs. 5a-5d).

Regarding Claim **13**, **Williams** teaches the control device of claim 8, wherein the set value is a position set value (Col. 4, Ln. 59-68, Col. 5, Ln. 1-3, FIG. 6).

Regarding Claim **14**, **Williams** teaches the control device of claim 8, wherein the set value is a speed set value (Col. 7, Ln. 1-5, FIGs. 4 & 5d).

Regarding Claim **16**, **Williams** teaches the control device of claim 8, wherein a change in speed of the set value increases disproportionately with a magnitude of the deflection when a given deflection is exceeded.

Regarding Claim **17**, **Williams** teaches the control device of claim 8, further comprising electromagnetic means for providing the pulse-shaped mechanical feedback (Col. 8, Ln. 2-5, FIG. 6).

Regarding Claim **20**, **Williams** teaches a control method for displacing at least one machine axis of a machine tool or production machine, said control method comprising the steps of:

detecting a position of a control element which is adapted to be deflected from a rest position (Col. 6, Ln. 50-54, FIG. 2);

comparing the position of the control element to a set value representing a deflection (Col. 6, Ln. 54-65, FIG. 3); and

providing a pulse-shaped mechanical feedback to an operator for at least one change in the set value (Col. 7, Ln. 14-21, FIGs. 4 & 5).

Regarding Claims 19 and 22, **Williams** teaches the control device of claim 8 and 20 respectively, wherein a pulse-shaped mechanical feedback is provided to an operator for each change in the set value (Col. 7, Ln. 5-12, FIG. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Williams (US Patent No. 4560983)** in view of **Shahoian et al. (US Patent Application No. 2001/0000663)**.

Regarding Claim 15, **Williams** teaches the control device of claim 8.

However, **Williams** does not teach that the control device constructed as a member selected from the group consisting of joystick, joy-wheel, and computer mouse.

In the same field of endeavor, **Shahoian et al.** teach the control device constructed as a member selected from the group consisting of joystick, joy-wheel, and

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computer mouse (Col. 5, [0052], Col. 11, [0090]) for the benefit of improving feedback to users not only control device but also virtual input interface apparatus.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Williams** teaching of a control device comprising a movable control element, movement parameters, and pulse-shaped mechanical feedback with **Shahoian et al.** teaching of a control device selecting from the group consisting of joystick, joy-wheel, and computer mouse in order to benefit of improving feedback to users not only control device but also virtual input interface apparatus.

Regarding Claims 18 and 21, **Williams** teaches the control device of claim 8 and the control method of claim 20 respectively.

However, **Williams** does not teach that the control device further comprises a monitor screen displaying the device in the form of a corresponding virtual handwheel.

In the same field of endeavor, **Shahoian et al.** teach that the control device further comprises a monitor screen, said control device being represented on the monitor screen in the form of a corresponding virtual handwheel (Col. 10, [0084], FIG. 10a) for the benefit of improving the interfacing between the device and operator by having a control device comprising a movable control element, movement parameters, pulse-shaped mechanical feedback, and a monitor screen displaying the control device in the form of a corresponding virtual handwheel.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Williams** teaching of a control device comprising a movable control element, movement parameters, and pulse-shaped mechanical

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feedback with **Shahoian et al.** teaching of displaying the control device on a screen in order to benefit of improving the interfacing between the device and operator by having a control device comprising a movable control element, movement parameters, pulse-shaped mechanical feedback, and a monitor screen displaying the control device in the form of a corresponding virtual handwheel.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Freer (US Patent No. 5392502).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:30-5:00) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272 7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Lam/
Examiner, Art Unit 2629

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